

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	BRS	L1	585	310/340	USPAT	2007/05/22 08:42	
2	BRS	L2	618	310/344	USPAT	2007/05/22 08:57	
3	BRS	L3	1358	310/348	USPAT	2007/05/22 09:20	
4	IS&R	L4	157	(310/348).CCLS.	US-PGPUB	2007/05/22 09:23	
5	IS&R	L5	50	(310/340,344).CCLS.	US-PGPUB	2007/05/22 09:25	
6	IS&R	L6	141	(310/340,344).CCLS.	FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/05/22 09:29	
7	IS&R	L7	352	(310/348).CCLS.	FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/05/22 09:38	
8	BRS	L8	760	piezoelectric and substrate and (cover or lid or top) adj5 (through adj1 hole or via)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/05/22 09:59	

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
9	BRS	L9	717	resin and substrate and (cover or lid or top) adj5 (through adj1 hole or via) and (moisture or halogen) not 18	US- PGPUB ; USPAT ; USOCR ; FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/05/2 2 09:59	



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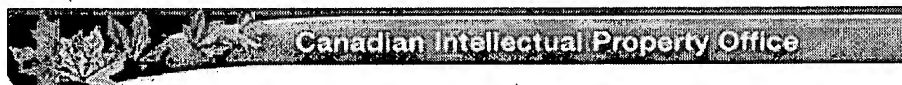
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### Search Results 05/22/2007 - 13:02:37

Query :

((cover or lid or top or resin)) <AND> ((

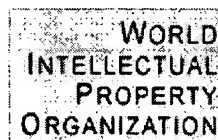
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<in> abstract ) <AND> ( ( (via or "through hole") ) <in> claims )

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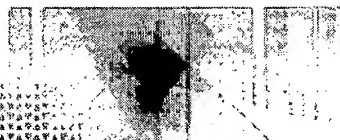
289 documents out of 1912372 matched your query. Click on its number to view the details of the document.

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1. [2250912](#) HOUSING FOR AN ELECTRONIC CIRCUIT IMPLEMENTABLE IN AN ELECTRONIC CARD, AND A METHOD OF MANUFACTURING SUCH A CARD 87%
2. [2023070](#) ELECTRONIC CIRCUIT PACKAGE AND PRODUCTION THEREOF 85%
3. [2359368](#) A METHOD FOR PAPERLESS ATTACHMENT OF SUPPLEMENTARY FORMS TO A WORLD WIDE WEB APPLICATION 84%
4. [2556986](#) CABINET WITH CROSS-CONNECT THAT PROVIDES ACCESS TO REAR SIDE OF ELECTRONIC EQUIPMENT 82%
5. [2540154](#) IMPROVEMENTS IN HEAT DISSIPATION FOR ELECTRONIC ENCLOSURES 82%
6. [2509312](#) MEDIA CENTER 82%
7. [2378282](#) MICROFIBER DIELECTRICS WHICH FACILITATE LASER VIA DRILLING 82%



IP SERVICES


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Results of searching in PCT for:  
 piezoelectric and substrate and ( cover or lid or top or resin ) near ( "through hole" or via\* ): 4 records

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Showing records 1 to 4 of 4 :

[Refine Search](#)

piezoelectric and substrate and (cover or lid or top or re



- | Title  | Pub. Date  | Int. Class | Applicant  |
|--|------------|------------|--|
| 1. <a href="#">(WO 2006/047042) PIEZOELECTRIC ISOLATING TRANSFORMER</a>  | 04.05.2006 | H01L 41/08 | AGILENT TECHNOLOGIES, INC.                               |
| <p>The <b>piezoelectric</b> isolating transformer (20) is characterized by an operating frequency range and includes a resonant structure (21) having at least one mechanical resonance in the operating frequency range. The resonant structure has an insulating <b>substrate</b> (30), a first electro-acoustic transducer (40) and a second electro-acoustic transducer (50). The <b>substrate</b> has a first major surface and a second major surface opposite the first major surface. The first electro-acoustic transducer is mechanically coupled to the first major surface. The second electro-acoustic transducer is mechanically coupled to the second major surface. One of the transducers (40, 50) is operable to convert input electrical power in the operating frequency range to ...</p>        |            |            |  |
| 2. <a href="#">(WO 2004/095489) INSERTING-FINGER LIQUID METAL RELAY</a>  | 04.11.2004 | H01H 55/00 | AGILENT TECHNOLOGIES, INC.                               |
| <p>An electrical relay comprising having two wettable electrical contacts (118, 120) supporting a conducting liquid (126). A non-wettable switch finger (114) is moved between first and second positions between the electrical contacts by action of an actuator (130, 132 or 140). In the first position the switch finger permits the conducting liquid (126) to bridge the gap between the contacts (118, 120) and complete an electrical circuit between the contacts. In the second position the switch finger separates the conducting liquid into two volumes, breaking the electrical circuit between the contacts. The switch finger may be located at the free end of a beam (112) that is deflected or bent by the action of <b>piezoelectric</b> elements (130, 132 or 140...</p>                      |            |            |  |
| 3. <a href="#">(WO 2004/095483) WETTING FINGER LATCHING PIEZOELECTRIC RELAY</a>  | 04.11.2004 | H01H 57/00 | AGILENT TECHNOLOGIES, INC.                               |
| <p>An electrical relay having two wettable electrical contacts (118 and 120), each supporting a conducting liquid (126). A wettable switch finger (114) is moved from a non-deflected position to first and second positions by action of an actuator (130, 132 or 140). In the first position the switch finger (114) touches the conducting liquid (126) and causes it to wet between the contacts and the switch and thereby complete an electrical circuit between the contacts. When the switch finger (114) is in the second position, the conducting liquid (126) cannot wet between first and second contacts and the switch finger and the electrical circuit between the first and second contacts is broken. The switch finger (114) may be located at the free end of...</p>                             |            |            |  |
| 4. <a href="#">(WO 2003/089138) MICROFLUIDIC DEVICE</a>  | 30.10.2003 | F04B 43/04 | UNIVERSITY OF HERTFORDSHIRE HIGHER EDUCATION CORPORATION |
| <p>A microfluidic device which is actuated by a piezo electric actuator. A microfluidic structure which comprises sequentially (i) a <b>substrate</b> through which there are a plurality of conduits (ii) a first layer of elastomeric material having a flat face and a patterned face having recesses formed therein, the flat face being bonded to the <b>substrate</b> and there being holes through the elastomeric layer connected to the recesses and aligned with the conduits in the <b>substrate</b> (iii) a second layer of a flexible material overlaying the patterned face of the elastomeric so that the holes and recesses in the elastomeric layer and the conduits in the <b>substrate</b> form channels through which fluid can flow (iv) an actuating means for driving a sealing means ...</p> |            |            |  |

[Search Summary](#)


piezoelectric NEAR "through hole": 0 occurrences in 0 records



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Results of searching in PCT for:  
 electronic and substrate and ( cover or lid or top or resin ) near ( "through hole" or via\* ) and  
 ( moisture or halogen ): 1 record  
 Showing record 1 to 1 of 1 :

[\[Search Summary\]](#)

**Refine Search** | electronic and substrate and (cover or lid or top or resin)



Title	Pub. Date	Int. Class	Applicant
1. <u>(WO 2001/001740) MICROFIBER DIELECTRICS WHICH FACILITATE LASER VIA DRILLING</u>	04.01.2001	H05K 1/03	ALLIEDSIGNAL INC.

This invention concerns **electronic** substrates comprising a non-woven filler material consisting primarily of micro-fiber glass, and a **resin** material. The present invention also includes **electronic** products manufactured from the **electronic** substrates of this invention including, but not limited to prepregs (16, 18), metal clad laminates, and printed wiring boards with and without lased **via** holes (20). The present invention further includes a method of manufacturing printed built-up wiring boards including the steps of forming a prepreg (16, 18) and forming at least one **via** (20) in the prepreg (16, 18).

### Search Summary



**electronic NEAR "through hole"**: 0 occurrences in 0 records.  
**substrate NEAR "through hole"**: 0 occurrences in 0 records.  
 (electronic NEAR "through hole" AND substrate NEAR "through hole"): 0 records.  
**cover NEAR "through hole"**: 0 occurrences in 0 records.  
**lid NEAR "through hole"**: 0 occurrences in 0 records.  
 (cover NEAR "through hole" OR lid NEAR "through hole"): 0 records.  
**top NEAR "through hole"**: 0 occurrences in 0 records.  
 ((cover NEAR "through hole" OR lid NEAR "through hole") OR top NEAR "through hole"): 0 records.  
**resin NEAR "through hole"**: 0 occurrences in 0 records.  
 (((cover NEAR "through hole" OR lid NEAR "through hole") OR top NEAR "through hole") OR resin NEAR "through hole"): 0 records.  
 ((electronic NEAR "through hole" AND substrate NEAR "through hole") AND (((cover NEAR "through hole" OR lid NEAR "through hole") OR top NEAR "through hole") OR resin NEAR "through hole")): 0 records.  
**electronic NEAR via\***: 15776 occurrences in 7309 records.  
**substrate NEAR via\***: 15764 occurrences in 6815 records.  
 (electronic NEAR via\* AND substrate NEAR via\*): 144 records.  
**cover NEAR via\***: 2831 occurrences in 1574 records.  
**lid NEAR via\***: 1039 occurrences in 565 records.  
 (cover NEAR via\* OR lid NEAR via\*): 2116 records.  
**top NEAR via\***: 7833 occurrences in 4407 records.  
 ((cover NEAR via\* OR lid NEAR via\*) OR top NEAR via\*): 6370 records.  
**resin NEAR via\***: 2541 occurrences in 1558 records.  
 (((cover NEAR via\* OR lid NEAR via\*) OR top NEAR via\*) OR resin NEAR via\*): 7900 records.  
 ((electronic NEAR via\* AND substrate NEAR via\*) AND (((cover NEAR via\* OR lid NEAR via\*) OR top NEAR via\*) OR resin NEAR via\*)): 21 records.  
 (((electronic NEAR "through hole" AND substrate NEAR "through hole") AND (((cover NEAR "through hole" OR lid NEAR "through hole") OR top NEAR "through hole") OR resin NEAR "through hole")) OR ((electronic NEAR via\* AND substrate NEAR via\*) AND (((cover NEAR via\* OR lid NEAR via\*) OR top NEAR via\*) OR resin NEAR via\*))) : 21 records.  
**moisture**: 418280 occurrences in 71935 records.

**RESULT LIST**Approximately **197** results found in the Worldwide database for:**piezoelectric or electronic** in the title AND **resin and via\*** and **substrate** in the title or abstract

(Results are sorted by date of upload in database)

**1 ELECTRONIC COMPONENT AND PRODUCTION METHOD THEREOF**

Inventor: TAOKA MIKIO; KUMEJI YASUSHI; (+1)

Applicant: MATSUSHITA ELECTRIC IND CO LTD (JP);  
TAOKA MIKIO; (+2)

EC:

IPC: **H01F27/29; H01F17/00; H01F27/29** (+1)Publication info: **WO2007055303** - 2007-05-18**2 Electronic component, mounted structure, electro-optical device, and electronic device**

Inventor: SAITO ATSUSHI (JP); TANAKA SHUICHI (JP) Applicant: SEIKO EPSON CORP (JP)

EC: H01L23/485B

IPC: **H01L23/12; H01L21/60; H01L23/485** (+4)Publication info: **TW263251B** - 2006-10-01**3 PIEZOELECTRIC RESONATOR**Inventor: FURUE JUNJI (JP); MURAHASHI MASATO (JP); Applicant: KYOCERA CORP (JP); FURUE JUNJI (JP);  
(+1) (+2)

EC:

IPC: **H03H9/02; H01L41/09; H03H9/17** (+3)Publication info: **WO2007026428** - 2007-03-08**4 ELECTRONIC MODULE**

Inventor: TANAKA SHUICHI

Applicant: SEIKO EPSON CORP

EC:

IPC: **H01L21/60; H01L21/02**Publication info: **JP2007019409** - 2007-01-25**5 PACKAGE FOR ELECTRONIC COMPONENT**

Inventor: KOMATSU TAKATSUGU; TANAKA TADASHIGE Applicant: NIPPON MICRON KK

EC:

IPC: **H01L23/12; H01L23/12**Publication info: **JP2007005741** - 2007-01-11**6 ELECTRONIC CIRCUIT MODULE**

Inventor: ISHIKAWA KAZUYA

Applicant: ALPS ELECTRIC CO LTD

EC:

IPC: **H01L21/60; H01L23/12; H01L21/02** (+1)Publication info: **JP2007005559** - 2007-01-11**7 MOUNTING METHOD OF ELECTRONIC COMPONENT**Inventor: NAKATSUGI KYOICHIRO; TOSHIOKA  
HIDEAKI; (+1)

Applicant: SUMITOMO ELECTRIC INDUSTRIES

EC:

IPC: **H01L21/60; H05K3/32; H01L21/02** (+1)Publication info: **JP2007005557** - 2007-01-11**8 PIEZOELECTRIC DEVICE**

Inventor: CHIBA SEIICHI

Applicant: SEIKO EPSON CORP

EC:

IPC: **H03H9/02; H01L23/02; H01L25/04** (+11)Publication info: **JP2006340035** - 2006-12-14**9 ELECTRONIC COMPONENT BONDING DEVICE**

Inventor: NEHASHI TORU

Applicant: ATHLETE FA KK

EC:

IPC: **H01L21/60; H01L21/02**Publication info: **JP2006324579** - 2006-11-30**10 ELECTRONIC COMPONENT, RESIN SEALING METHOD OF ELECTRONIC COMPONENT AND RESIN SEALING DEVICE**

Inventor: ARAKI KYOICHI; OKAMOTO HIROTAKA; (+2) Applicant: TOWA CORP

EC: H01L21/56F; H01L21/56M

IPC: **B29C45/02; B29C45/14; B29C45/26** (+6)Publication info: **KR20010087175** - 2001-09-15

**RESULT LIST**

23 results found in the Worldwide database for:

**piezoelectric** in the title AND **resin and "through hole"** in the title or abstract

(Results are sorted by date of upload in database)

- 1 RESIN SEALING SEMICONDUCTOR DEVICE, PIEZOELECTRIC OSCILLATOR, AND MANUFACTURING METHOD THEREOF**  
Inventor: SHIMODAIRA KAZUHIKO      Applicant: SEIKO EPSON CORP  
EC:      IPC: **H01L23/28; H01L21/56; H01L41/09** (+9)  
Publication info: **JP2006049547** - 2006-02-16
- 2 PIEZOELECTRIC COMPONENT AND ITS MANUFACTURING METHOD, COMMUNICATIONS EQUIPMENT**  
Inventor: KOSHIDO YOSHIHIRO; IWAMOTO TAKASHI      Applicant: MURATA MANUFACTURING CO  
EC:      IPC: **H01L41/09; H01L21/60; H01L41/08** (+28)  
Publication info: **JP2005130341** - 2005-05-19
- 3 PIEZOELECTRIC VIBRATION DEVICE**  
Inventor: SATO SHUNSUKE      Applicant: DAISHINKU CORP  
EC:      IPC: **H03H9/02; H03H9/10; H03H9/02** (+3)  
Publication info: **JP2004320297** - 2004-11-11
- 4 SURFACE-MOUNTED TYPE PIEZOELECTRIC DEVICE AND MANUFACTURING METHOD THEREFOR**  
Inventor: TAIRA TOSHIYUKI; MATSUKI KIYOTAKA;      Applicant: TOYO COMMUNICATION EQUIP  
(+2)  
EC:      IPC: **H03H3/02; H03H9/02; H03H3/00** (+3)  
Publication info: **JP2003087071** - 2003-03-20
- 5 PIEZOELECTRIC ACTUATOR AND MANUFACTURING**  
Inventor: INADA YUTAKA; MINAMI NOBUYUKI      Applicant: TAIHEIYO CEMENT CORP  
EC:      IPC: **H01L41/083; H01L41/22; H01L41/083** (+2)  
Publication info: **JP2001148521** - 2001-05-29
- 6 PIEZOELECTRIC ACTUATOR**  
Inventor: SUZUKA JUNICHI; SAKURAI TAKAYUKI; (+3)      Applicant: NGK SPARK PLUG CO; HONDA MOTOR CO LTD  
EC:      IPC: **F04B9/00; F04B45/047; H02N2/00** (+5)  
Publication info: **JP2000287468** - 2000-10-13
- 7 PIEZOELECTRIC OSCILLATOR**  
Inventor: SHISHIDO YOSHINOBU      Applicant: TOYO COMMUNICATION EQUIP  
EC:      IPC: **H03B5/32; H03H9/02; H03B5/32** (+3)  
Publication info: **JP2000036716** - 2000-02-02
- 8 PIEZOELECTRIC VIBRATOR AND ITS PRODUCTION**  
Inventor: NOGUCHI KATSUHIKO      Applicant: CITIZEN ELECTRONICS  
EC:      IPC: **H03H9/02; H03H3/02; H03H9/10** (+9)  
Publication info: **JP11103231** - 1999-04-13
- 9 PIEZOELECTRIC OSCILLATOR AND ITS PRODUCTION**  
Inventor: NOGUCHI KATSUHIKO      Applicant: CITIZEN ELECTRONICS  
EC:      IPC: **H03H9/02; H03H3/02; H03H9/10** (+9)  
Publication info: **JP11103230** - 1999-04-13
- 10 SURFACE MOUNT SUBSTRATE FOR ELECTRONIC PARTS AND PIEZOELECTRIC OSCILLATOR USING THE SAME**  
Inventor: MIZUMURA HIROAKI; MORIYA KOICHI      Applicant: NIHON DEMPA KOGYO CO  
EC:      IPC: **H01L23/12; H03B5/32; H05K1/02** (+9)

**RESULT LIST**

16 results found in the Worldwide database for:

**piezoelectric or electronic** in the title AND **resin and via and moisture** in the title or abstract

(Results are sorted by date of upload in database)

**1 ELECTROOPTICAL DEVICE AND ELECTRONIC EQUIPMENT**

Inventor: KODA TOYOSHI; HAYASHI KENJI

Applicant: SEIKO EPSON CORP

EC:

IPC: **H05B33/04; G09F9/30; H01L51/50** (+11)

Publication info: **JP2005091874** - 2005-04-07

**2 Electronic energy-storage luminous character and preparation method**

Inventor: ZHU BINGZHU (CN)

Applicant: ZHU BINGZHU (CN)

EC:

IPC: **G09F13/00; G09F13/22; G09F13/00** (+3)

Publication info: **CN1372236** - 2002-10-02

**3 MOUNTING STRUCTURE FOR ELECTRONIC COMPONENT**

Inventor: ISHIKAWA TOMONORI; OGISO HOMARE

Applicant: DENSO CORP

EC:

IPC: **H05K3/28; H01L21/60; H05K1/18** (+6)

Publication info: **JP2001085823** - 2001-03-30

**4 Adhesive tape for continuously arranging electronic parts**

Inventor: NAGASAKI KUNIO (JP); ICHIKAWA HIROKI (JP); (+2)

Applicant: NITTO DENKO CORP (JP)

EC:

IPC: **C09J7/02; C09J123/08; C09J131/04** (+8)

Publication info: **TW445290B** - 2001-07-11

**5 ELECTRONIC COMPONENT**

Inventor: YAMAMOTO KEIZO

Applicant: MURATA MANUFACTURING CO

EC:

IPC: **H01L23/02; H01L23/04; H01L23/02** (+2)

Publication info: **JP11163181** - 1999-06-18

**6 ELECTRONIC COMPONENT ENCAPSULATING PACKAGE**

Inventor: SHIMA TAKESHI; SUGIMOTO TETSUHIRO

Applicant: TOMOEGAWA PAPER CO LTD

EC:

IPC: **C09J9/00; C09J11/04; H01L23/10** (+9)

Publication info: **JP11145337** - 1999-05-28

**7 ELECTRONIC CIRCUIT BOARD AND VIA HOLE FILLING METHOD**

Inventor: SAGAMI YOSUKE

Applicant: DEKUSUTAA KK

EC:

IPC: **H05K1/11; H05K3/42; H05K3/00** (+5)

Publication info: **JP11008454** - 1999-01-12

**8 METHOD OF MANUFACTURING ELECTRONIC PARTS PACKAGE**

Inventor: KOMATSU TAKATSUGU

Applicant: NIPPON MICRON KK

EC:

IPC: **H01L23/12; H01L23/12; (IPC1-7): H01L23/12**

Publication info: **JP9289262** - 1997-11-04

**9 SURFACE MOUNT PIEZOELECTRIC DEVICE**

Inventor: UNNO YUKIHIRO

Applicant: MEIDENSHA ELECTRIC MFG CO LTD

EC:

IPC: **H03H9/02; H03H9/05; H03H9/10** (+5)

Publication info: **JP9252230** - 1997-09-22

**10 SEALING METHOD OF ELECTRONIC-COMPONENT HOUSING CONTAINER**

Inventor: NOMOTO KOICHIRO; KOBAYASHI YOJI

Applicant: KYOCERA CORP

EC:

IPC: **H01L23/02; H01L23/04; H01L23/10** (+4)

Publication info: **JP8204046** - 1996-08-09

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One letter word or Stopwords are not searchable.

substrate electronic moisture

AND

AND

cover lid top resin

OR

AND

through hole via

OR

AND

**Date of publication of application** --- e.g. 19980401 - 19980405 - 

AND

**IPC** --- e.g. D01B7/04 A01C11/02

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Index Indication

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**Text Search**If you want to conduct a Number Search, please click on  
the button to the right.

Number Search

**Applicant, Title of invention, Abstract** --- e.g. computer semiconductor

If you use the AND/OR operation, please leave a SPACE between keywords.

One letter word or Stopwords are not searchable.

piezoelectric substrate

AND

AND

through hole

AND

AND

cover lid top resin

OR

AND

**Date of publication of application** --- e.g. 19980401 - 19980405 - 

AND

**IPC** --- e.g. D01B7/04 A01C11/02

If you use the OR operation, please leave a SPACE between keywords.



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